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Solar-powered Livestock Watering Systems to be Demonstrated at Southwest Virginia Farms

Richmond, VA – Southwest Virginia farmers will soon be able to benefit from a high-tech solution to watering livestock and managing grazing pastureland thanks to a demonstration project funded by the U.S. Department of Energy (U.S. DOE) and local matching grants. The federal grant was the result of a joint application by Virginia and Maryland to further solar energy industry and business growth in the region. The Department of Mines, Minerals and Energy will administer the grant in Virginia.

Commerce and Trade Secretary Barry E. DuVal noted that the project combines the Administration's efforts to provide economic support to all regions of the Commonwealth with initiatives that support the State's photovoltaic and agricultural industries. "We are pleased to be working in partnership with the New River-Highlands and Black Diamond Resource Conservation and Development Councils to promote state-of-the-art solar and agricultural technologies in Southwest Virginia," Secretary DuVal said. "The project provides an excellent opportunity to introduce a renewable energy technology to Virginia farmers that can improve their bottom-line costs, while simultaneously developing regional markets for solar electric products."

The projects will be coordinated in each state through the local Resource Conservation and Development (RC&D) Councils to ensure local support and overall project success. A total of 24 solar water pumping demonstrations are planned in the 17 Southwest Virginia counties served by the New River Highlands and Black Diamond RC&D Councils. The RC&D Councils will work with the 10 local Soil and Water Conservation Districts to recruit participants in each county they serve. Participants will

receive system cost-share support, training, and technical assistance in planning and installing the livestock watering systems and controlled grazing systems.

Funding for the Virginia portion of the project includes $53,000 in U.S. DOE funding and $164,000 in local matching funds in the form of goods and services. The 24 Virginia demonstration sites are expected to save livestock producers over 93,000 gallons of fuel over a ten-year period.

Solar electricity provides a cost-effective substitute for conventional fuels used for water pumping in remote livestock operations. In Southwest Virginia, the use of solar power in lieu of conventional fuels also has great potential to further the goals of the Management Intensive Grazing Initiative inaugurated by the New River-Highlands RC&D council in 1995. This initiative was established to help landowners maximize the use of their grazing pastureland. Lack of adequate watering systems was identified as a major impediment to participation in the grazing initiative.

Solar powered watering systems would help eliminate this impediment by providing livestock producers an effective method of locating water where it is needed within a controlled grazing system. With adequate watering systems, livestock can more effectively use the available forage. Controlled, uniform grazing results in reduced dependence on diesel fuel used to mechanically harvest, store and then feed stored forage to livestock. The strategic placement of water within a controlled grazing system also results in even distribution of animal waste over the pasture which reduces the need for commercial fertilizers, the petroleum products from which they are manufactured, and the diesel fuel required for spreading them. Improved forage utilization in a controlled grazing system also reduces weed pressure and the need for herbicides.

Lack of experience with solar powered water pumps is a major impediment to their acceptance and use for livestock watering systems. This project will allow Southwest Virginia farmers to see solar water pumping systems in operation, talk with the land owners who are using the technology, and assist them in making an informed decision about using solar powered pumping systems in their operations.

For information about how to participate in this program contact Gary Boring, New River Highlands Resource, Conservation and Development Council at (276) 228-2879.

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